Amdt. dated November 3, 2005
Reply to Office action of August 3, 2005

Serial No. 10/695,006
Docket No. P16187
Firm No. 0077.0029

REMARKS/ARGUMENTS

Office Action Summary

The office action summary should be corrected to indicate the correct number of pending claims in the application. The correct number of pending claims in the original application is 27 and the office action summary indicates 1-26 as the pending claims.

Examiner should indicate the status of the drawings in the office action summary.

Amendments to the Specification

The Abstract has been amended to replace "wherein" with "where".

Rejections of claims 6, 8, 14, 16, 25, 27 under 35 U.S.C. 112

Claims 6, 14, 25 have been amended such that the metadata is copied from the host memory to the adapter memory.

Claims 8, 16, 27 have been amended such that the network adapter is included in the chip set that includes the central processing unit of the host.

Applicants submit that the amendments to claims 6, 8, 14, 16, 25, 27 overcome the Examiner's 35 U.S.C. 112 based rejections.

The Examiner has not rejected claims 6, 8, 14, 16, 25, 27 on any other grounds. For the above reasons amended claims 6, 8, 14, 16, 25, 27 are patentable over the cited art.

Claims rejections under 35 U.S.C. 102(b)

The Examiner has rejected claims 1-3, 9-11, 17-18, and 20-22 under 35 U.S.C. 102(b) as being anticipated by Starr (WO 02/27519). Applicants have amended at least independent claims 1, 9, 17, 20 and traverse the Examiner's 35 U.S.C. 102(b) based rejections.

The Examiner has rejected clams 4, 5, 7, 12, 13, 15, 19, 23, 24, 26 under 35 U.S.C. 103(a) as being obvious over Starr. Applicants traverse the Examiner's 35 U.S.C. 103(a) based rejections.

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Amended Claims 1, 9, 17, 20

Amended Claim 1 requires:

allocating, by a protocol processor, metadata related to a packet in a host memory, wherein the host memory is comprised in a host that is coupled to a network adapter that includes the protocol processor;

copying the metadata, by the protocol processor, from the host memory to an adapter memory associated with the network adapter in anticipation of a requirement for protocol processing of the metadata by the protocol processor; and

processing, by the protocol processor, the copied metadata.

The Examiner has rejected claims 1 under 35 U.S.C. 102(b) as being anticipated by Starr. Applicants traverse.

The added requirements that the copying of the metadata is in anticipation of a requirement for protocol processing of the metadata by the protocol processor may be found in at least original claim 2 of the Application. The added requirements the copying of the metadata is by the protocol processor may be found in at least original claims 9 and 17. The added requirement that the protocol processor is included in the network adapter may be found in at least FIG. 1 of the Application.

Amended claim 1 requires copying the metadata from the host memory to an adapter memory in anticipation of a requirement for protocol processing of the metadata by the protocol processor. Applicants submit that the Examiner cited Starr (page 10, lines 19-26; page 7, lines 13-14; page 7, line 21; page 10, lines 26-28; page 12, lines 26-29; page 10: lines 28-30; page 10, lines 26-28; page 11, lines 1-16) fails to teach or disclose the claim requirement of copying, by the protocol processor, the metadata from the host memory to an adapter memory in anticipation of a requirement for protocol processing of the metadata by the protocol processor, wherein the protocol processor is included in the network adapter.

The Examiner appears to have indicated in page 5, lines 2-4 of the Office Action, that page 10, lines 26-28 and page 11, lines 1-16 of the cited Starr includes discussion of the claim requirement of copying the metadata from the host memory to an adapter memory in anticipation of a requirement for protocol processing of the metadata by the protocol processor.

Page 10, lines 26-28 of the cited Starr discusses that after a connection has been set up, the communication control block is passed by the INIC driver 39 from the host to the intelligent

INIC memory 46. From FIG. 1 of the cited Starr it can be seen that the INIC driver 39 is located in the host 20 and not in the INIC 22. Therefore the cited Starr appears to be discussing that the copying from the host memory to the adapter memory is performed by a program, i.e., the INIC driver 39, that is located in the host and not in the network adapter, whereas the claim requirements are different because the claims require that the copying of the metadata from the host memory to the adapter memory be performed by the protocol processor included in the network adapter.

Additionally, the Examiner cited page 10, lines 26-28 and page 11, lines 1-16 of the cited Starr fails to teach or disclose the claim requirement that the copying the metadata from the host memory to an adapter memory in anticipation of a requirement for protocol processing of the metadata by the protocol processor. Page 11, lines 1-16 discusses whether to cache the message data in the host file cache or INIC file cache and discusses that if any data was included in the header portion that was sent to the host, it is then stored in the destination. Therefore, the cited Starr discusses whether to store messages in the host file cache or the INIC file cache. However, the Examiner has failed to indicate where the cited Starr discloses the clam requirement of copying the metadata from the host memory to an adapter memory in anticipation of a requirement for protocol processing of the metadata by the protocol processor.

Should the Examiner maintain the claim rejections the Examiner is requested to indicate the answers to the following questions:

(i)   Where does the cited Starr disclose the claim requirement that a protocol processor included in the network adapter copies the metadata from the host memory to the adapter memory?

(ii)   Where does the cited Starr disclose the claim requirement that in anticipation of a requirement for protocol processing of the metadata by the protocol processor the metadata is copied from the host memory to the adapter memory?

The Examiner has rejected independent claims 9, 17, and 20 for reasons similar to the rejection of claim 1. Applicants submit that amended independent claims 9, 17, and 20 are patentable over the cited art for the reasons similar to those provided for the patentibility of claim 1.

For the above reasons, independent claims 1, 9, 17, 20 are patentable over the cited art.

Dependent Claims 2-8, 10-16, 18-19, 21-27

The Examiner has also rejected pending claims 2-8, 10-16, 18-19, 21-27 that depend directly or indirectly on the pending independent claims 1, 9, 17, or 20. Applicants submit that these claims are patentable over the cited art because they depend directly or indirectly from independent claims 1, 9, 17, or 20 which are patentable over the cited art for the reason discussed above, and because the combination of the limitations in the dependent claims 2-8, 10-16, 18-19, 21-27 and the base and intervening claims from which they depend provide further grounds of distinction over the cited art.

Amended dependent claims 2, 10, 18, 21

Amended claim 2 depends on claim 1, wherein the copying further comprises:

fetching the metadata from the host memory to the adapter memory, using at least one criterion to anticipate the requirement for protocol processing of the metadata by the protocol processor.

The Examiner has rejected claim 2 under 35 U.S.C. 102(b) as being anticipated by Starr. Applicants traverse.

The added requirements of claim 2 may be found in at least FIG. 5 and paragraph 33 of the original Application.

The Examiner has failed to indicate where the cited Starr discloses the claim requirement of using at least one criterion to anticipate the requirement for protocol processing of the metadata by the protocol processor.

The Examiner has rejected dependent claims 10, 18, 21 for reasons similar to the rejection of claim 1. Applicants submit that amended dependent claims 10, 18, 21 are patentable over the cited art for the reasons similar to those provided for the patentibility of claim 2.

For the above reasons amended dependent claims 2, 10, 18, and 21 are patentable over the cited art.

Dependent claims 3, 11, 22

Dependent claim 3 depends on claim 1, wherein the metadata is stored in a protocol control block of a transport protocol, and wherein the protocol control block indicates a state of a

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session handled by the protocol processor, wherein the protocol processor reduces requirements for the adapter memory by utilizing the host memory to store the metadata, and wherein the metadata is prefetched in anticipation of the requirement for protocol processing of the metadata by the protocol processor.

The Examiner has rejected claim 3 under 35 U.S.C. 102(b) as being anticipated by Starr. Applicants traverse.

The newly added requirements that the protocol processor reduces requirements for the adapter memory by utilizing the host memory to store the metadata, and that the metadata is prefetched in anticipation of the requirement for protocol processing of the metadata by the protocol processor may be found in at least paragraphs 6 and 39 of the original Application.

The Examiner cited Starr fails to disclose the claim requirements that the protocol processor reduces requirements for adapter memory by utilizing the host memory to store the metadata, and that the metadata is prefetched in anticipation of the requirement for protocol processing of the metadata by the protocol processor.

The Examiner has rejected dependent claims 11 and 22 for reasons similar to the rejection of claim 3. Applicants submit that amended dependent claims 11 and 22 are patentable over the cited art for the reasons similar to those provided for the patentibility of claim 3.

For the above reasons amended dependent claims 3, 11, and 22 are patentable over the cited art.

Dependent claim 19

The Examiner has rejected dependent claim 19 under 35 U.S.C. 102(a) as being obvious over Starr. Applicants traverse.

Dependent claim 19 has been amended to include the additional requirements that the protocol processor reduces requirements for adapter memory by utilizing the host memory to store the metadata, and that the metadata is prefetched in anticipation of the requirement for protocol processing of the metadata by the protocol processor may be found in at least paragraphs 6 and 39 of the original Application.

Dependent claim 19 has also been amended to include the new requirements, that the protocol processor is further capable of maintaining a delayed acknowledgment timer, wherein the delayed acknowledgment timer is associated with a session and determining whether the

delayed acknowledgment timer is likely to expire in a period of time, wherein the copying of the metadata from the host memory to the adapter memory is performed in response to determining that the delayed acknowledgment timer is likely to expire in the period of time, and these added new requirements may be found in at least original claim 6.

The added requirements of dependent claim 19 are not taught or suggested by the cited Starr. Additional new requirements of dependent claim 19 are discussed later on.

For the above reasons amended dependent claim 19 is patentable over the cited art.

Amended dependent claims 7, 15, 26

Claim 7 has been amended to depend on dependent claim 3, whereas originally claim 7 depended on independent claim 1. The Examiner has rejected claim 7 under 35 U.S.C. 103(a) as being obvious over Starr. Applicants traverse.

The Examiner has indicated that while the cited Starr does not disclose that the host memory is larger in size than the adapter memory, it would have been obvious to make the host memory larger in size than the adapter memory because host memory in general have to store data from a greater number of software and hardware sources that collectively require greater memory space. By amending claim 7 to depend on claim 3, claim 7 has the requirement that the host memory is larger in size than the adapter memory, wherein the protocol processor reduces requirements for adapter memory by utilizing the host memory to store the metadata.

Applicants submit that the requirement that the host memory is larger in size than the adapter memory, wherein the protocol processor reduces requirements for the adapter memory by utilizing the host memory to store the metadata is not obvious over the cited Starr.

The Examiner has rejected dependent claims 15 and 26 for reasons similar to the rejection of claim 7. Applicants submit that amended dependent claims 15 and 26 are patentable over the cited art for the reasons similar to those provided for the patentibility of claim 7.

For the above reasons amended dependent claims 7, 15, 26 are patentable over the cited art.

Amended dependent claims 4, 12, 19, 23

The newly added requirement that the copying is from the host memory to the adapter memory overcomes the Examiner's 103(a) based obviousness rejection of claims 5, 13, 19, 24.

The newly added requirement may be found in at least FIG. 6 of the application. The copying is not to the "destination" as referred to by the Examiner but from the host memory to the adapter memory. The cited Starr fails to teach or suggest the claim requirements of copying the metadata from the host memory to the adapter memory, in response to determining based at least in part upon the data structure that the request can be associated with a session that is capable of processing the request.
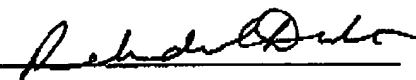
For the above reasons claims 4, 12, 19, 23 are patentable over the cited art.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-27 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 50-0585.

The attorney/agent of record invites the Examiner to contact him at (310) 557-2292 if the Examiner believes such contact would advance the prosecution of the case.

Dated: November 3, 2005

By: _____

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